

Untethering the Future

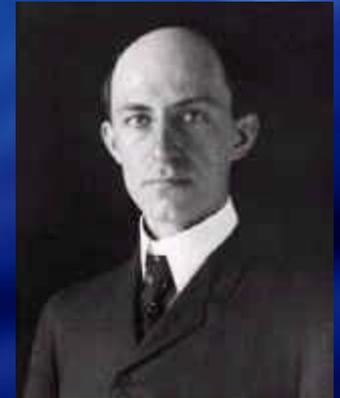
Dr. Steven G. Wax

Director, DSO



“The flying machine which will really fly might be evolved by the combined and continuous efforts of mathematicians and mechanics in from one million to ten million years”

— The New York Times
9 October 1903



“We started assembly today”

— Orville Wright’s Diary
9 October 1903



DSO Missions

Exploit Discoveries and Innovations in Science and Engineering

Paradigm Shifts in Defense Capabilities

Mine the "Far Side of the Far Side"

Breakthroughs to Exploit

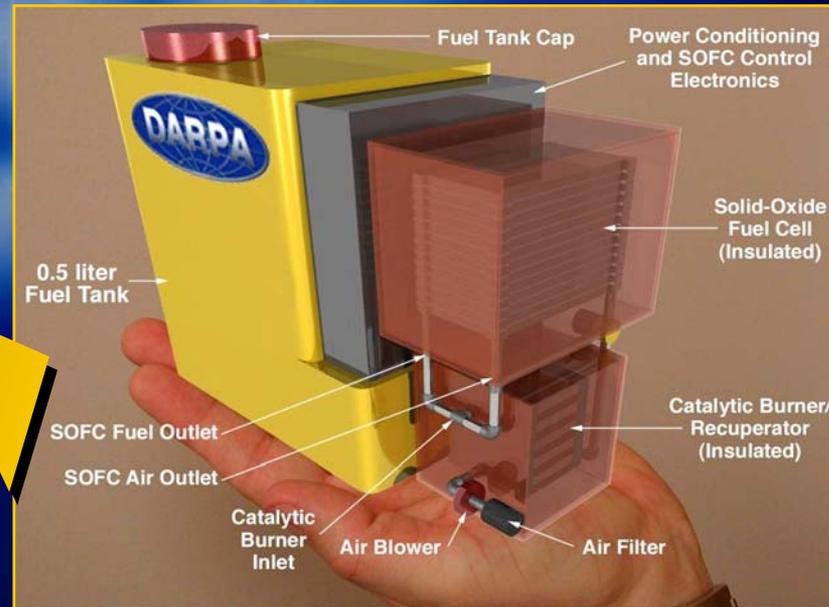


DSO Palm Power Program



Energy Storage

Portable power sources with up to **15x** the energy density of today's batteries



Energy Conversion



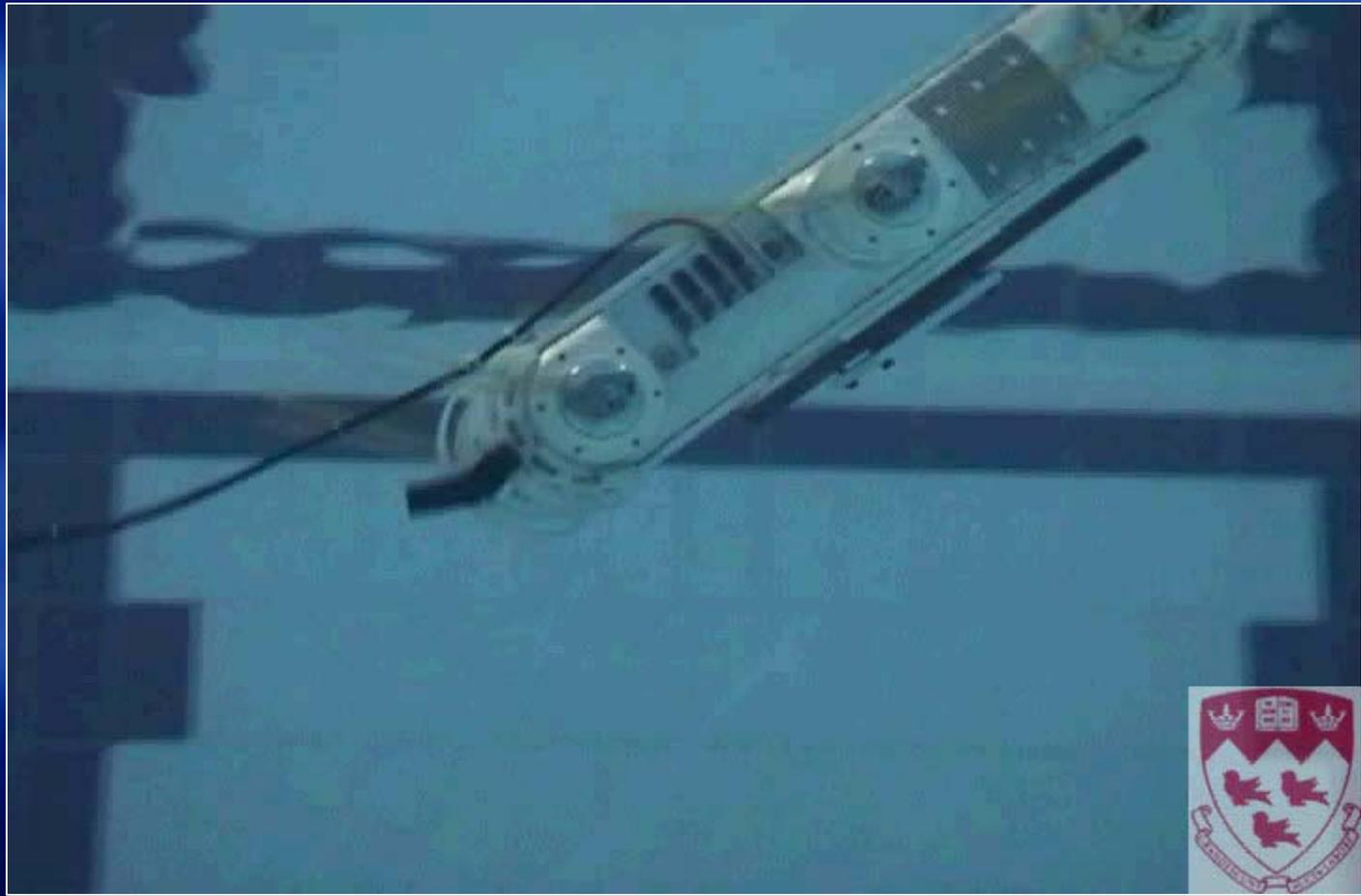
Exoskeleton



Biomimetic Locomotion

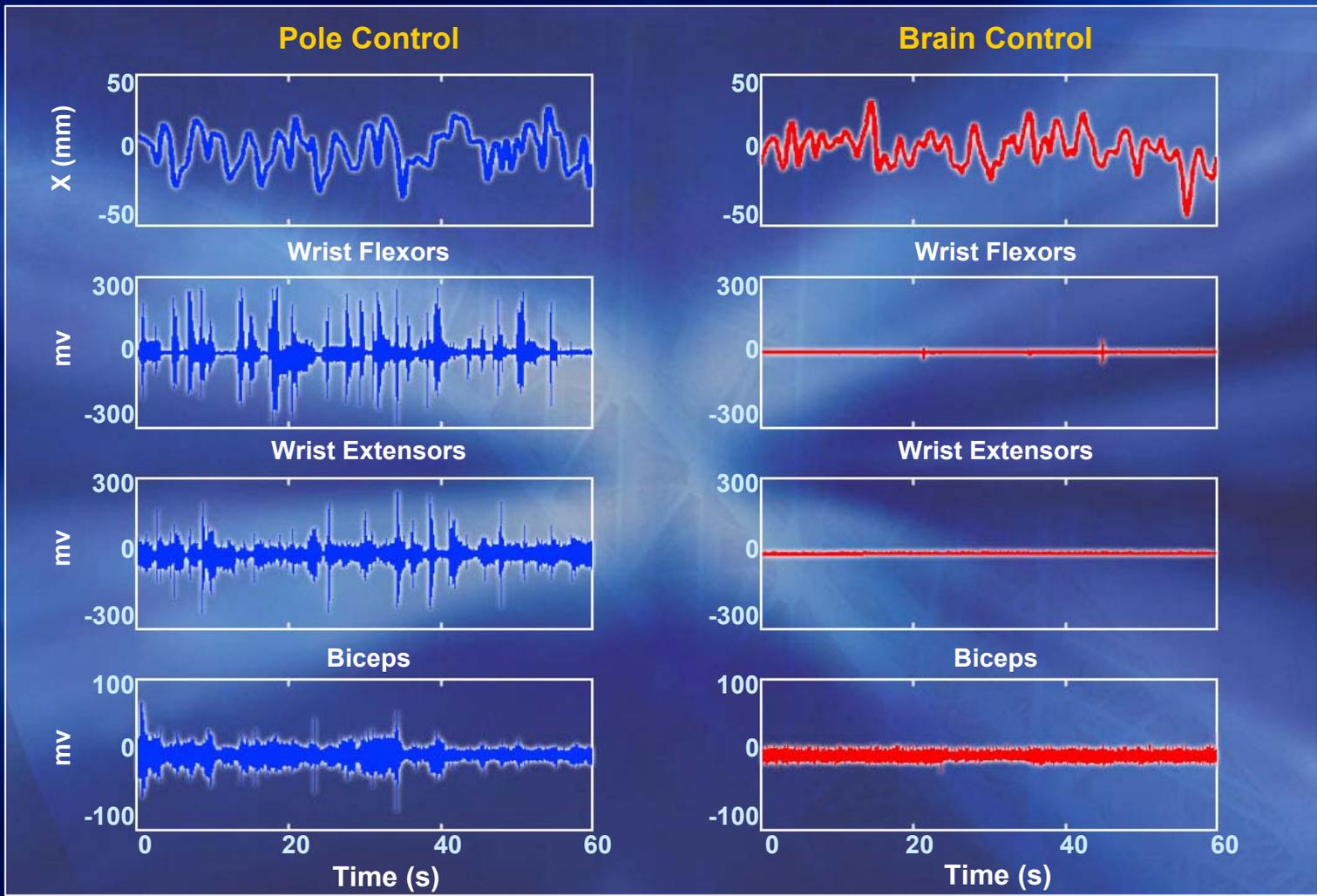


Biomimetic Locomotion



Biomimetic Locomotion





DSO Overview

- Untethering the Future
DSO Overview – Dr. Steven Wax
- Obtaining Unobtainium
New Materials – Dr. John Main
- Letting Schrodinger's Cat out of Pandora's Box
Quantum Mechanics for Defense – Dr. John Lowell
- Making Math Count
Exploiting Mathematics – Dr. Carey Schwartz
- After the BioRevolution
Maintaining Human Combat Performance – Dr. Brett Giroir
- Now for Something Completely Different
Office Reprise – Dr. Steven Wax

